Mr. Richard Sprott, Director Division of Air Quality Department of Environmental Quality P.O. Box 144820 Salt Lake City, UT 84114-4820

Attention: Milka Radulovic, NSR Engineer

Dear Mr. Sprott:

#### NOTICE OF INTENT: Modification of Source - Update Information

On September 23, 2002, Intermountain Power Service Corporation (IPSC) submitted a Notice of Intent (NOI) to make certain changes at the Intermountain Generating Station (IGS) in Delta. The IGS is a coal fired steam-electric plant located in Millard County. Specifically, IPSC is requesting approval to make modifications to Units One and Two at IGS to enhance reliability. IPSC is also requesting an affirmative determination from the Division of Air Quality (DAQ) on a proposed pollution control project. This letter provides additional information concerning these requests. Note that the discussions below enhance the information already provided on September 23, 2002 and are based upon the sources cited in footnotes of that NOI.

#### Corrections

Please make the following corrections to the NOI of September 23, 2002:

On Page 2 of the NOI, under the heading of PRODUCTION SUMMARY, please note that design heat input will increase from 8500 to 9225 Mbtu/hr. We had erroneously put 8352 Mbtu/hr as previous design.

#### Clarifications

Certain points in the NOI need clarification as follows:

On Page 1 of the NOI, Under Item 1, discussing PROCESS DESCRIPTION, the last sentence of the second paragraph discusses boiler ratings. Please note that the boiler design is a 2,975 psi, 6,600,000 lb/hr steam flow, 1005E F boiler, approved to go to 6,900,000 lbs/hr steam flow. Since pressure and temperature ratings are not changing, no name plate corrections are being made.

On Page 3 of the NOI, in the emissions table, carbon monoxide (CO) emission rates are provided based upon two different derivations. The current CO rate of 0.022 lbs/Mbtu is based upon AP-42 calculations. The projected CO rate is based upon combustion modeling for overfire air. The increase from a current calculated rate to a projected rate is about 3,500 tons. Since we have no actual CO monitoring data, IPSC has pulled from its archived files the performance data from the IPP boiler acceptance testing. This data indicates that the actual current CO rate of emissions is about 0.041 lbs/mmbtu, rather than 0.022 lbs/Mbtu, which would project an increase of about

2,400 tons of CO in a worst case change, where NOx is concurrently decreasing 4,000 to 6,000 tons.

On Page 4 of the NOI, Item a. - in the Induced Fan Drive discussion, we are now advising that flow modeling has shown the best approach to correcting our obsolescence problem may be to replace our current power drives with new induced pulse width modulation technology. Such a change would require motor replacements. No changes to the fans themselves are being considered, and no change beyond approved capacity would result from the possible drive and motor change out. We are therefore requesting approval accordingly.

On Page 5 of the NOI, Item c. - in the Overfire Air Ports & Low-NOx Burner discussion, please note that the replacement or rebuild of the present low-NOx burners can be considered as replacement-in-kind, as we do not propose to increase heat input through the new burners from what is currently approved. The current burners have already been shown to accommodate heat input rates of the current uprate modification. The burners in Unit Two have not met design life, and need to be replaced. Unit One burners will undergo repairs or rebuilds as needed.

On Page 5 of the NOI, Item c. - also in the Overfire Air Ports & Low-NOx Burner discussion, we would like to clarify that overfire air is needed, in part, to accommodate the restriction on NOx emissions imposed by Acid Rain regulations that were promulgated based upon the Clean Air Act Amendments of 1990. Specifically, in 2007 Acid Rain requirements impose a 0.46 lb/Mbtu annual cap for NOx emissions on IPP. Since an early election was filed for IPP, this new limit was delayed. Current forecasts of coal quality indicate that without overfire air, the new Acid Rain limit could be difficult to attain.

On Page 6 of the NOI, we discussed the applicability of Prevention of Significant Deterioration (PSD) standards to the addition of overfire air (OFA) at IPP. We would like to further clarify why PSD is not applicable to OFA. This clarification ties directly to procedural safeguards and environmentally beneficial tests as described by EPA guidance, as well as other PSD exemptions for pollution control projects. The EPA guidance for environmentally beneficial pollution control projects can be found in the 7/1/94 Memorandum from John S. Seitz, "Pollution Control Projects and New Source Review Applicability." Our discussion related to that document follows.

## **Environmentally Beneficial Test**

Note that on the outset this guidance is for non-electric utility industries, and specifically states that an explicit pollution control project exclusion for utilities was adopted by rule. However, the guidance discusses the exemption for utilities and the intent of EPA in granting such an exclusion, which is helpful for this discussion. It clearly states that nothing in the guidance is meant to affect the WEPCO exclusion for pollution projects that are currently applicable to utilities. The guidance goes on to clarify that any project undertaken at an existing electric steam generating unit for purposes of reducing emissions, which includes the add-on installation of innovative or conventional NOx control technology, such as overfire air, is a pollution control project that can be presumed, by its nature, to be environmentally beneficial. The presumption fails only if the DAQ believes that the NOx controls will not be operated or maintained according to standard and reasonable practices, or if collateral pollutant increases have not been adequately addressed. There is nothing in the history of the IPP station that can indicate to DAQ anything other than good operation and maintenance. We are providing a detailed discussion below concerning collateral increases.

This and other information presented in the Seitz memorandum should assist DAQ in an affirmative determination that the installation of OFA at IPP is not a major modification. In summary, the guidance

directs the consideration of certain safeguards and procedural steps to ensure that a pollution control project is environmentally beneficial. Those tests and steps are discussed item by item.

- 1. The DAQ must first ascertain that the project is environmentally beneficial. In doing so, the DAQ may account for the reduction of any targeted pollutant against the increase of any collateral pollutant. In this case, when operated to fully minimize NOx, OFA may decrease NOx by 4,000 to 6,000 tons per year, while CO may increase by 2,400 tons per year. Next, the DAO should also determine that collateral non-target pollutant increases are minimized. This does not mean that DAQ should perform a BACT-type analysis or prescribe secondary controls or permit limits for the non-target pollutants. Rather, minimization means that the source has taken reasonable steps to minimize collateral emissions within the physical configuration and operating standards associated with the control device. Permit limits are to be used only if there is a presumption that a violation of an applicable ambient air quality standard would occur, which is extremely unlikely for CO from this type of project. Inasmuch as OFA is a widely recognized and accepted NOx control technology, IPSC can affirm based upon its own operating history that such controls will be operated according to the standard for minimizing collateral increases.
- 2. The DAQ must also ensure that the project causes no violation of an NAAQS, or PSD increment, or adversely impacts an AQRV in a Class I area due to increases in collateral pollutants or changes in utilization patterns. IPSC will provide the modeling under separate cover that demonstrates that the installation of OFA and a collateral increase of CO can still be determined to be environmentally beneficial under this safeguard. Since the IPP facility is located in an attainment area for CO, no offsetting will be required. Further, OFA in and of itself, cannot affect utilization of steam generation. OFA cannot physically cause heat input to boilers to change, nor allow heat input to increase just due to the control of emissions. Additionally, OFA does not affect boiler capacity, decrease production costs, or improve marketability of this station=s output, further negating any affect on utilization. In fact, EPA states in the guidance that they do not expect these types of controls to increase utilization.
- 3. The guidance indicates that for pollution control projects at facilities other than electric utilities, the DAQ must provide a case-by-case approval, along with a public review process because a regulatory exclusion is lacking for those other categories. Although WEPCO has been promulgated into the governing regulations at both the Federal and State levels, IPSC foresees that through the September 23, 2002 NOI, the DAQ will nonetheless provide a case-by-case review and public comment period. Along with this, the DAQ must determine that the project must still comply with all otherwise applicable requirements under both Federal and State standards, which IPSC affirms it will.

### **Conclusion**

A thorough review of the application of the pollution control project exclusion clearly indicates that the DAQ can approve the proposed installation of overfire air at the Intermountain

Generating Station as environmentally beneficial. The DAQ can also make this determination based upon IPSC operating history and statements herein.

### CO Monitoring and Potential-to-Emit

IPSC is willing to work with DAQ on methodology for CO monitoring, including the use of surrogate emission monitoring used in conjunction with other parametric operational data. This is important in light of the fact that changes in determining CO must be made from an AP-42 calculation, to a modeled-based derivation.

We are including with this letter a copy of the original projected emission values from the January 25, 1980 Applicability Determination for IPP. The data thereon shows a potential-to-emit for CO of 5,468 tons per year. We have found nothing else in our archives indicating a change from this PTE for our current two-unit operation. The PTE and operating limit described in our current Approval Order is based wholly upon AP-42 calculations, which are now shown to be incorrect for the proposed addition and operation of overfire air. IPSC is requesting that this be corrected in new Approval Order, as was also discussed in the September 23, 2002 NOI on Page 8. IPSC believes that the DAQ should be able to issue a new Approval Order with an adjusted PTE that more accurately reflects actual operation.

Should you require further information to expedite the approval of this request, please contact Mr. Dennis Killian, Superintendent of Technical Services, at (435) 864-4414, or <a href="mailto:dennis-k@ipsc.com">dennis-k@ipsc.com</a>.

# Title V Permit

The changes proposed herein will affect only one condition of the current Title V permit. Condition II.B.1.i limits CO emissions on an annual basis. Since maximizing NOx control efficiency can cause CO emissions to exceed this limit, IPSC requests that this condition be revised accordingly.

In as much as this notice of intent may affect our Title V Operating Permit, I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Cordially,

George W. Cross President, Chief Operations Officer, and Title V Responsible Official

BP/RJC:jmg

Enclosure:

Copy of 9/23/02 NOI

Copy of 1/25/80 Applicability Analysis

cc:

Blaine Ipson, IPSC

Lynn Banks, IPSC

Bruce Moore, LADWP CES John Schumann, LADWP Eric Tharp, LADWP James Holtkamp, LLG&M